

FEATURES

100W Constant Current LED Driver with Dimming

LWC100 Series

- High Efficiency & High Power Factor – Meets Energy Star & DLC
- Wide Range Input 90-305 VAC
- Certified to UL8750, EN61347 & CE
- Class 2 Output (Some Models)
- 0-10V & PWM (Output) Dimming
- Damp & Wet Location Certified (Applicable Models), IP67 Certified
- 5 Year Warranty
- Over Voltage, Short Circuit & Optional Over Temperature Protection
- Long Life Japanese Electrolytic Capacitors
- RoHS Compliant



SPECIFICATIONS

	Model # (1)	Current (mA)	Voltage	Output Power	Efficiency (Typ.)		PF (4)
					110V	220V	277V
See Part Number Builder to create your customized part	LWC100-035S1	350	186V~286V	100 W	91%	92%	0.9
	LWC100-045S1	450	144V~222V	100 W	91%	92%	0.9
	LWC100-054S1	540	120V~185V	100 W	91%	92%	0.9
	LWC100-070S1	700	93V~143V	100 W	91%	92%	0.9
	LWC100-105S1	1050	62V~95V	100 W	91%	92%	0.9
	LWC100-140S1	1400	47V~72V	100 W	91%	92%	0.9
	LWC100-168S3 (2)	1680	37V~57V	96 W	91%	92%	0.9
	LWC100-200S3 (2)	2000	31V~48V	96 W	91%	92%	0.9
	LWC100-234S2 (2)	2340	27V~41V	96 W	91%	92%	0.9
	LWC100-267S2 (2)	2670	23V~36V	96 W	91%	92%	0.9
	LWC100-300S2 (2)	3000	21V~32V	96 W	91%	92%	0.9
	LWC100-343S2 (2)	3430	18V~28V	96 W	91%	92%	0.9
LWC100-400S2 (2)	4000	16V~24V	96 W	91%	92%	0.9	

Output	Load Regulation	±5%
	Line Regulation	±2%
	Current range	±5%
	Turn-on Delay	0.6 sec. (Typ.) Measured at 110Vac input. / 0.6 sec. (Typ.) Measured at 220Vac input.
	Ripple & Noise (pk-pk)	3% Vo Measured by 20 MHz bandwidth oscilloscope and the output paralleled a 0.1 uF ceramic capacitor and a 10 uF electrolytic capacitor
Input	Rated Voltage	100~277 Vac
	Frequency Range	50Hz ~60Hz
	Inrush Current	65A at 230Vac input, 25°C Cold Start
	AC Current (Typ.)	1.5 A measured at full load and 100 Vac input / 0.8 measured at full load and 220 Vac input
	THD	< 20% measured at 100-277 Vac, from 75% to 100% Load
	Leakage Current	0.25 mA Measured at 277Vac 60Hz Input



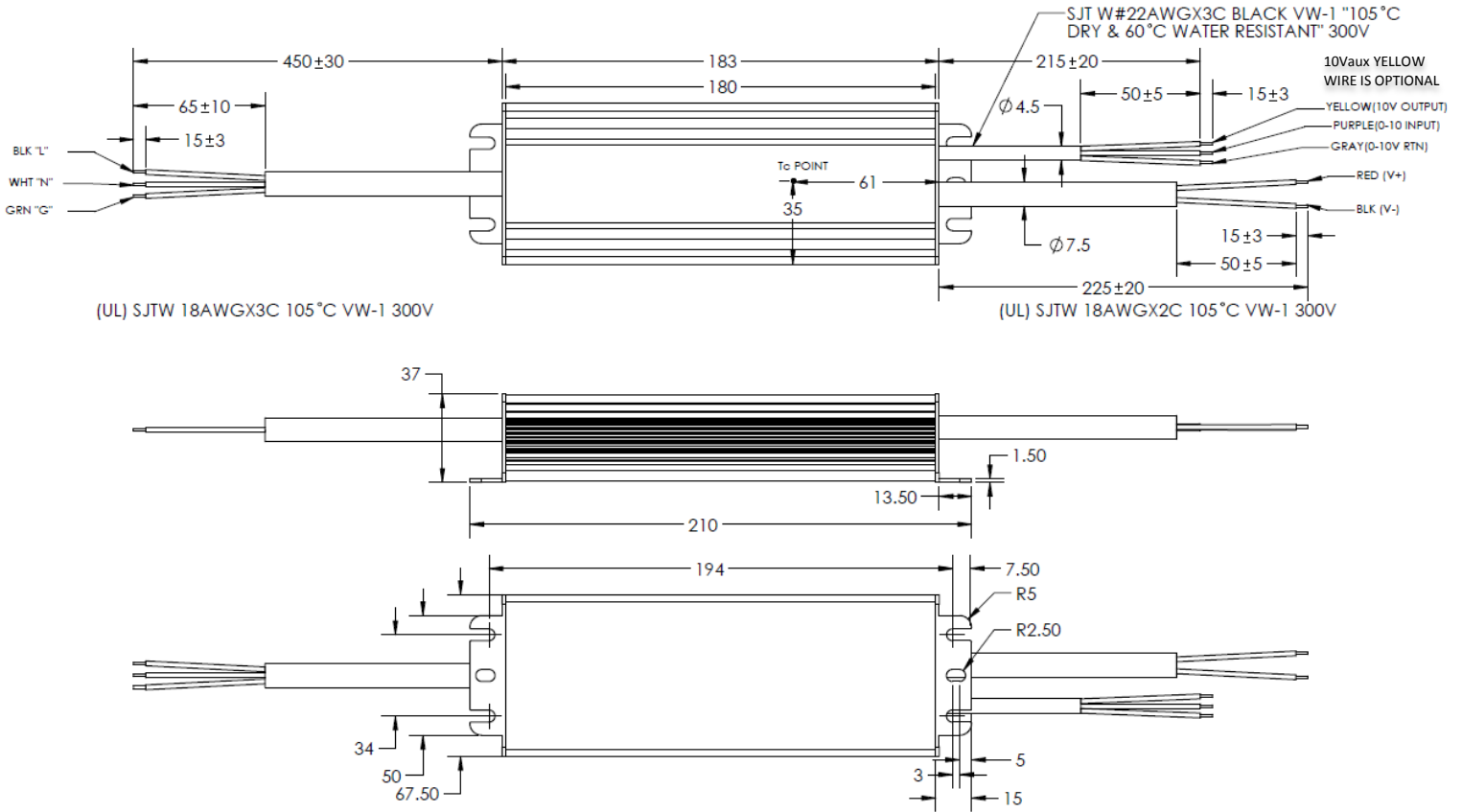
Protections	Short Circuit	Protection type : Hiccup mode, recovers automatically after fault condition is removed	
	Over Temperature	110°C Maximum temperature of components inside the case, will auto recover after cooling (Optional)	
	Over Voltage	Latch mode, recycle AC to restart	
Environmental	Temperature Range	Operational	- 40°C ~+ 70°C
		Storage	- 40 ~ +85°C
	Case Temperature	Max. +90°C (See Mechanical Drawing for exact location)	
	Humidity	Operational	10% ~ 100% RH
Storage		5% ~100% R.H	
Safety & EMC	Safety Standards	UL8750, Compliance to UL1012 UL1310. CAN/CSA-C22.2 No. 223, CSA-C22.2 No. 107.1, CSA-C22.2 No. 250.0-13-12 EN61347.1, EN61347-2-13 and EN60529	
	EMI Conduction & Radiation	Meet EN55015 FCC Part 15 Class B	
	EMS Immunity	EN 61000-3-2, EN 61000-3-3, EN 61000-4-2, EN61000-4-3, EN61000-4-4, EN61000-4-5, EN 61000-4-6, EN 61000-4-8, EN 61000-4-11, EN 61547	
	Surge	EN61000-4-2 4kV contact discharge (6kV option available)	
Others	MTBF	415,000 hours For 1400 mA output model, measured at 110V input, 80%Load and 25°C ambient temperature (MIL-HDBK-217F)	
	Lifetime	88,000 hours For 1400 mA output model, measured at 220V input, 80%Load and 45°C ambient temperature	
	Dimensions	Millimeters (L*W*H) 183*67.5*35	
	Weight	1000g	

Notes:

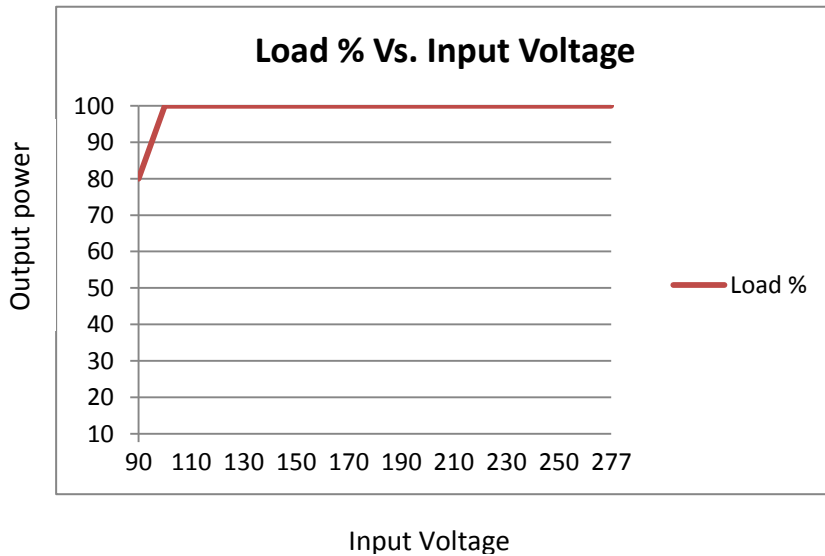
1. A suffix-xxx may be added to denote variations or modifications to the base product, where x can be any alphanumeric character or blank.
2. Class 2 output for US & Canada.
3. Minimum measured at 70% load
4. If not specified all measurement done at full load, 25C ambient and 230 Vac input.



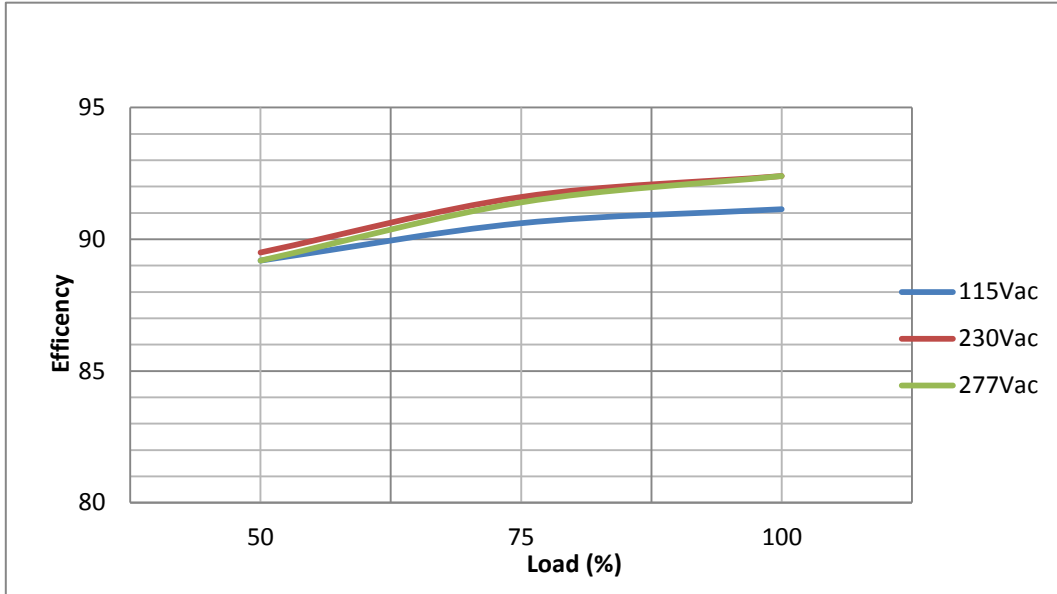
Mechanical Specifications



Derating Curve

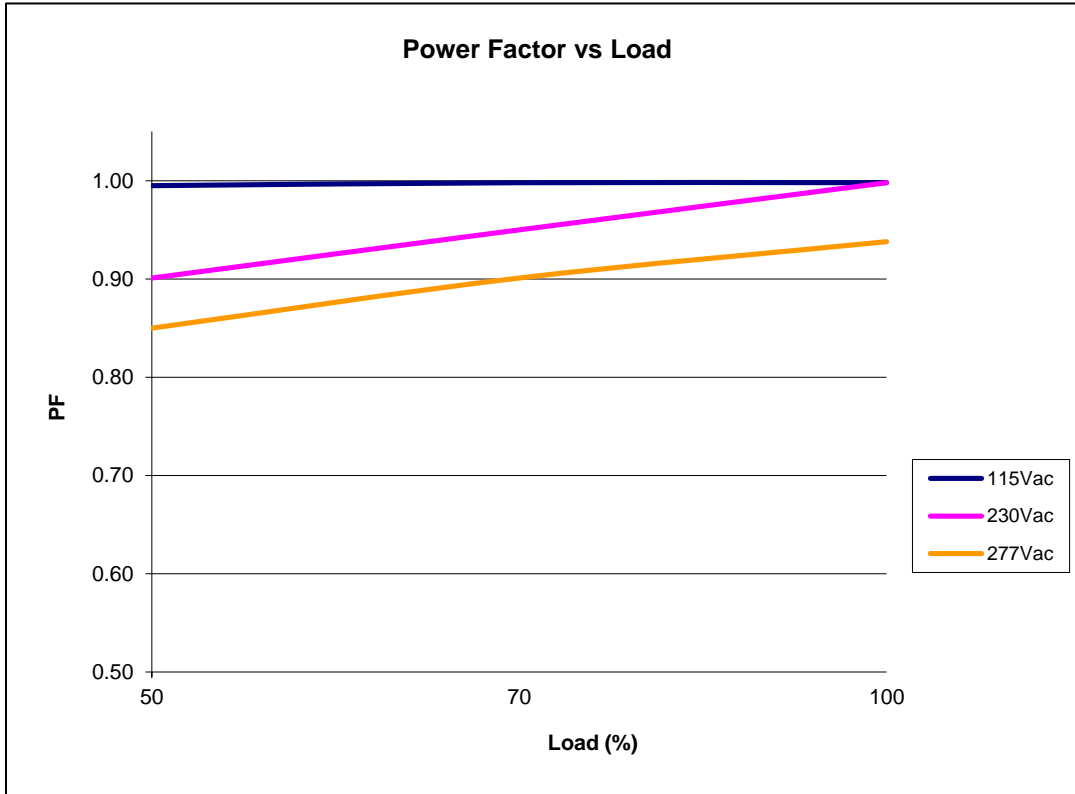


Efficiency vs. Load



1400mA model

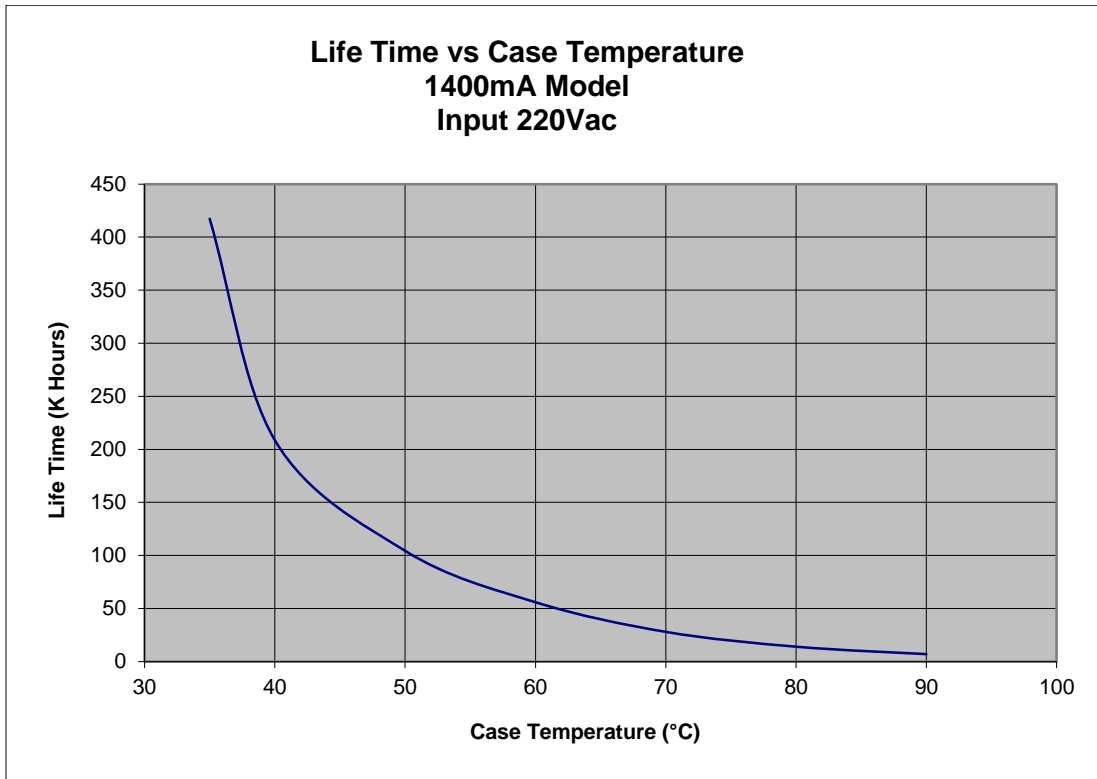
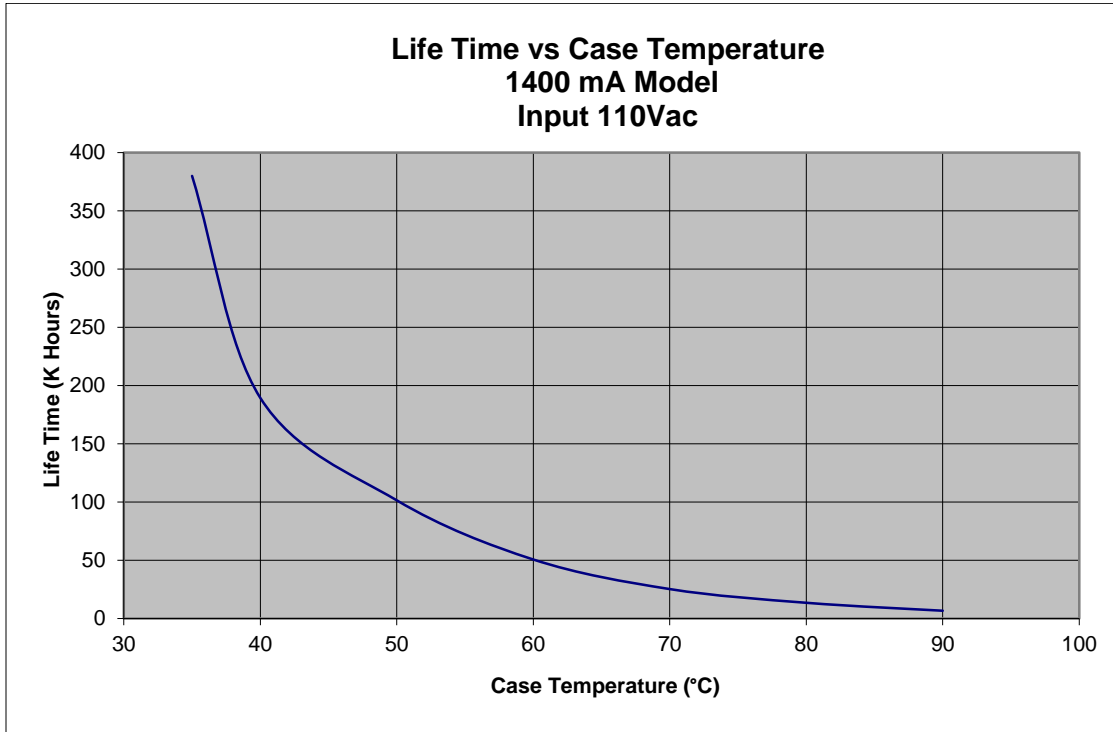
Power Factor Vs. Load



1400mA model

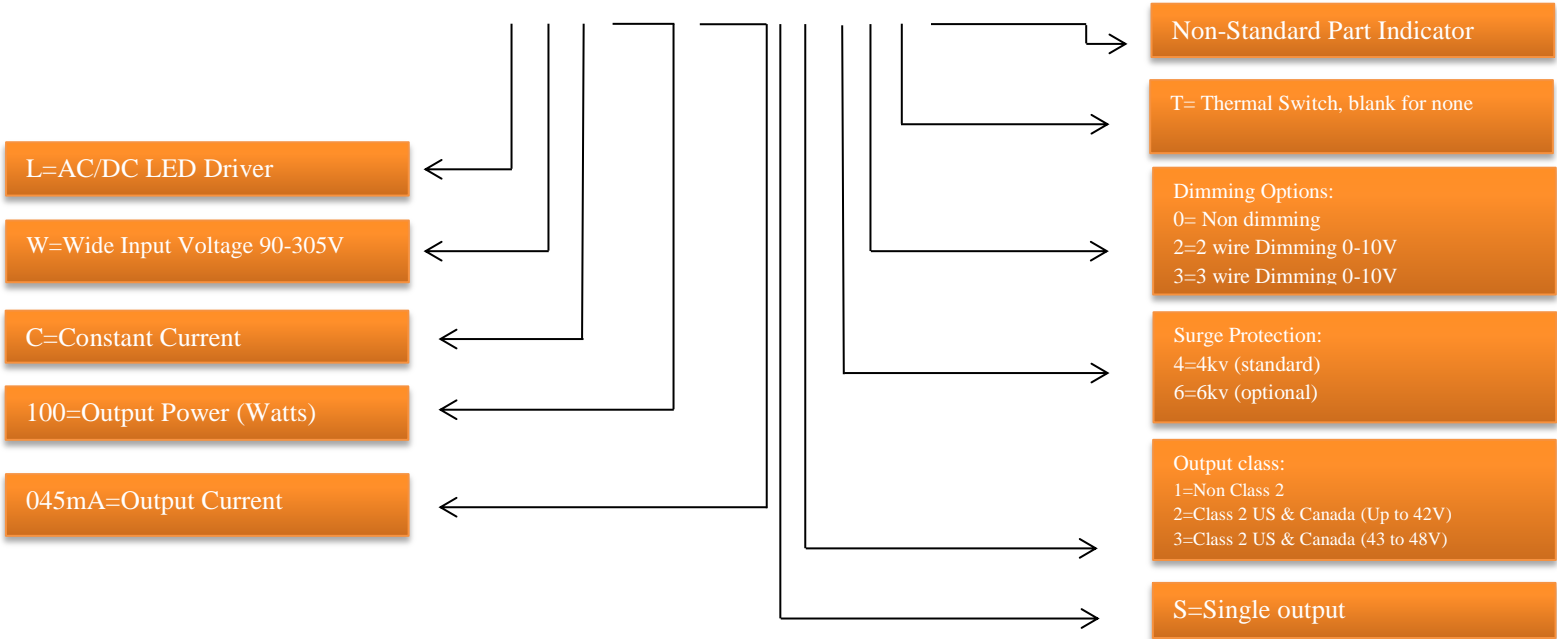


Life Time Vs. Case Temperature



PART NUMBER BUILDER

LWC100-045Sx 4 xT-xxx



SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE, AUTECH IS NOT RESPONSIBLE FOR ISSUES ARISING FROM ERRORS OR OMMISIONS

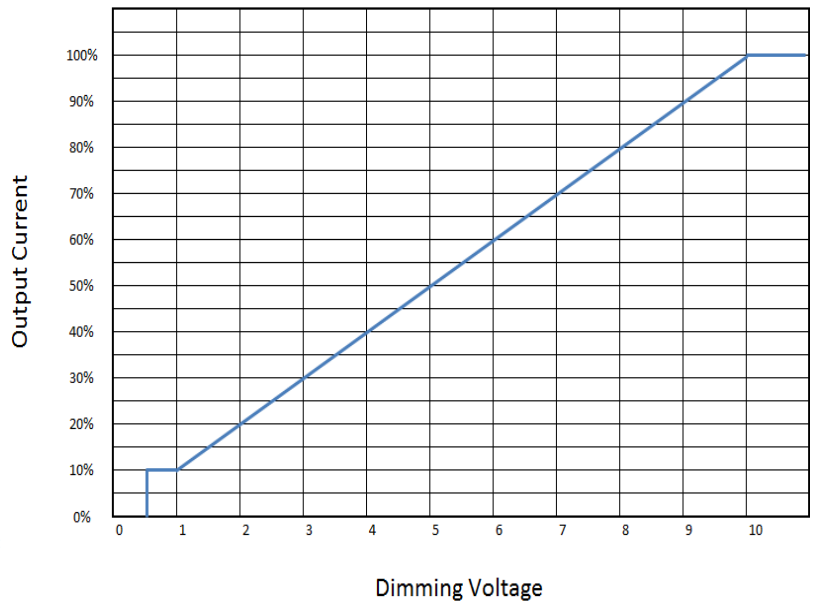
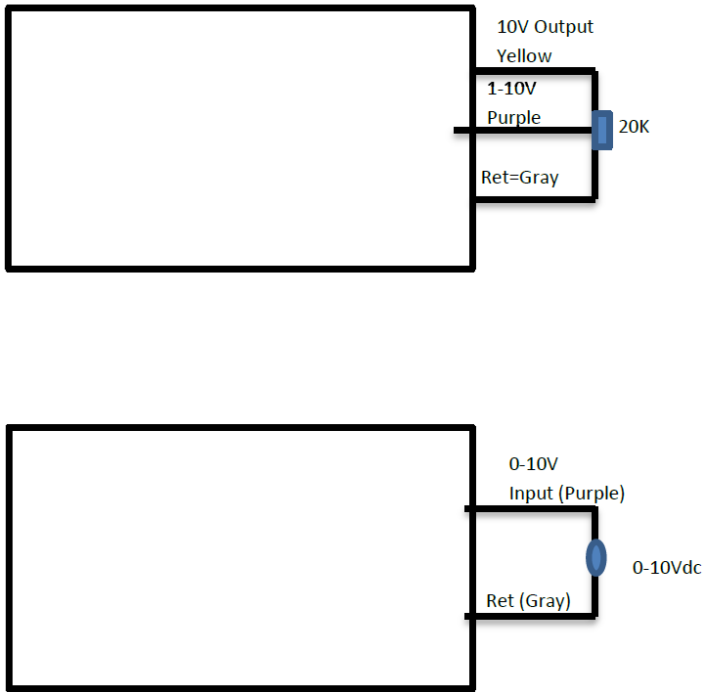


Dimming Control

Parameter	Min.	Typ.	Max.	Notes
10V output voltage	9.8V	10V	10.2V	
10V output source current	0mA		10mA	
Voltage on the 0~10V input pin	500mV		12V	
Source current on 0~10V input pin	0mA		1mA	

The Dimmer control may be operated from a potentiometer, an input signal of 0 – 10 Vdc or PWM signal.

Two recommended implementations are provided below.



Notes:

1. If the dimming function is not used, please open the yellow, purple and grey.
2. I_o is actually output current and I_r is rated current without dimming control.
3. Do not connect the dimming return to the output; otherwise the driver will not work normally.

